



PATENT
0515-1031

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Robert ANDRE et al.

Conf. 9542

Application No. 09/914,181

Group 1733

Filed December 7, 2001

Examiner Jeff H. Aftergut

PROCESS FOR THE PRODUCTION OF AN ACOUSTICALLY
ATTENUATING PANEL WITH A RESISTIVE LAYER WITH
STRUCTURAL PROPERTY AND PANEL THUS OBTAINED

REQUEST FOR PRE-APPEAL REVIEW

MS AF

Commissioner for Patents

February 22, 2006

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicants have appealed from the final rejection of process claims 9-16. It is not intended to pursue the appeal in connection with product claims 17 and 18; but at the same time, it should be understood that the product invention is not abandoned or disclaimed.

The Examiner rejects claims 9, 11, 12, 14 under 35 USC 103(a) as being unpatentable over EP 897,174 in view of EP 911,803 and NEWSAM and optionally further taken with any of HORN, WHITEMORE et al. or BEGGS and refers to paragraph 2 of the Office Action dated February 14, 2005.

Considering the rejection over EP 897,174 in view of EP 911,803 and NEWSAM, it is believed that a skilled artisan would not consider applying a reinforcing layer constituted by

filaments impregnated with a thermoplastic or thermosetting resin directly on a mold.

When starting from the description of Figs. 7A to 7E of EP '174, the skilled artisan:

1 - starts building an acoustic panel by emplacing an acoustically damping cloth on a mold,

2 - continues by winding reinforcing filaments on the acoustically damping cloth,

3 - applies a honeycomb core on the reinforcing filaments, and,

4 - completes the panel by applying a total reflector.

If the artisan tries to apply the teachings of EP '803 the choice is:

A - column 2 paragraph [0011]:

1 - to start building an acoustic panel by bonding a honeycomb core structure on a solid backface sheet,

2 - to continue by bonding a perforated sheet on the other side of the honeycomb core structure,

3 - and finally covering the perforated sheet with a mesh structure

or

B - column 3 paragraph [0012]:

1 - to start building the panel by bonding a honeycomb core structure on a solid backface sheet,

2 - to continue by bonding a mesh structure on the other side of the honeycomb core structure,

3 - and finally covering the mesh structure perforated sheet with a perforated sheet.

Neither '174 nor '803 teaches or suggests to first put reinforcing filaments on a mold and then to put the acoustic liner above such filaments.

Draping, winding or wrapping a layer of filaments on a mold as a first step and then covering such layer with a layer with acoustic properties is not a process which would be obvious when starting from '174 since looking at '803 since the clear benefit from '803 is to start the process with the backface sheet as a base and then to build the successive layers above such backface sheet.

The process of the present invention would not be obvious when starting from '803 and looking at '174 since it appears necessary in '803 to put the perforated sheet above all other layers at the end of the manufacturing process and since '174 covers the acoustic layer, already on the mold, by the reinforcing layer. The mold in '174 gives a solid support surface to the acoustic layer which is then sandwiched during manufacturing between the mold and the reinforcing layer.

The question with respect to the process claim is how the skilled artisan would have reasonably found any benefit in emplacing a reinforcing layer on a mold in the first place.

No reason is given in the prior art document for such a process and it is non-obvious to switch the placement of the layers in '174 simply because in '174 the filaments are pressed on the acoustic layer which is supported by the mold and because it does not appear obvious that putting such acoustic layer on filaments already on a mold may be able to reinforce the acoustic layer.

Furthermore, and with respect to '803, the invention described in this document concerns inlet cowl panels.

These parts have relatively simple surface (conical or cylindrical surfaces which may be developed). These surfaces allow the use of metallic materials (aluminum or steel).

The present invention relates to the manufacture of engine inlet cowls including the lips of such inlet.

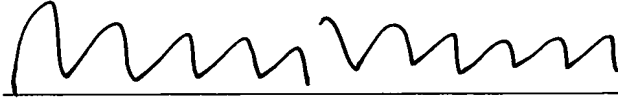
In '174 (column 2, lines 20 to 32) it is explained that such metallic materials cannot be used in the manufacture of engine air inlets because such inlets may have complex shapes (surfaces which cannot be developed) for which rigid materials, which do not bend, cause aerodynamic bulges resulting in acoustic non-homogeneous properties of the surface and reduced acoustic absorption characteristics (see also column 8 paragraph [0076]).

In view of the above explanations it is believed that claims 9, 10 and the claims dependent from such claims are patentable over the prior art.

Reconsideration and allowance are accordingly
respectfully requested.

Respectfully submitted,

YOUNG & THOMPSON

A handwritten signature in black ink, appearing to read 'Robert J. Patch', written over a horizontal line.

Robert J. Patch, Reg. No. 17,355
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297

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